

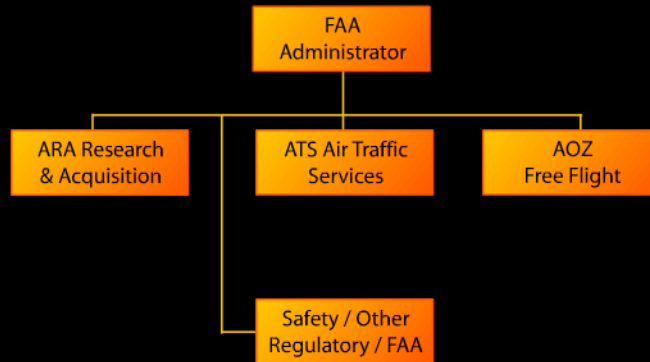


Measuring Performance

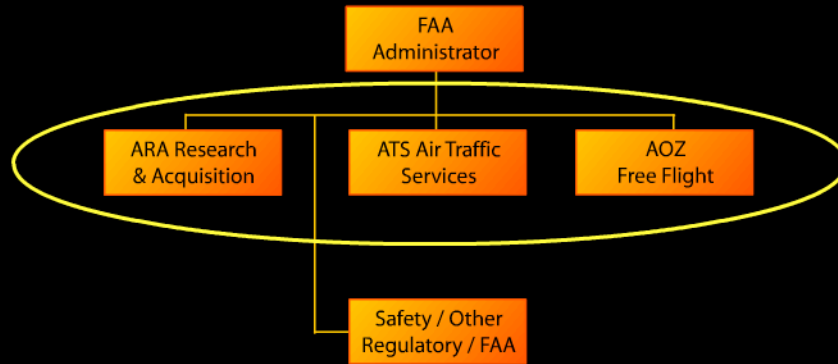
Eugene Juba

Senior VP Finance, Air Traffic Organization
Federal Aviation Administration

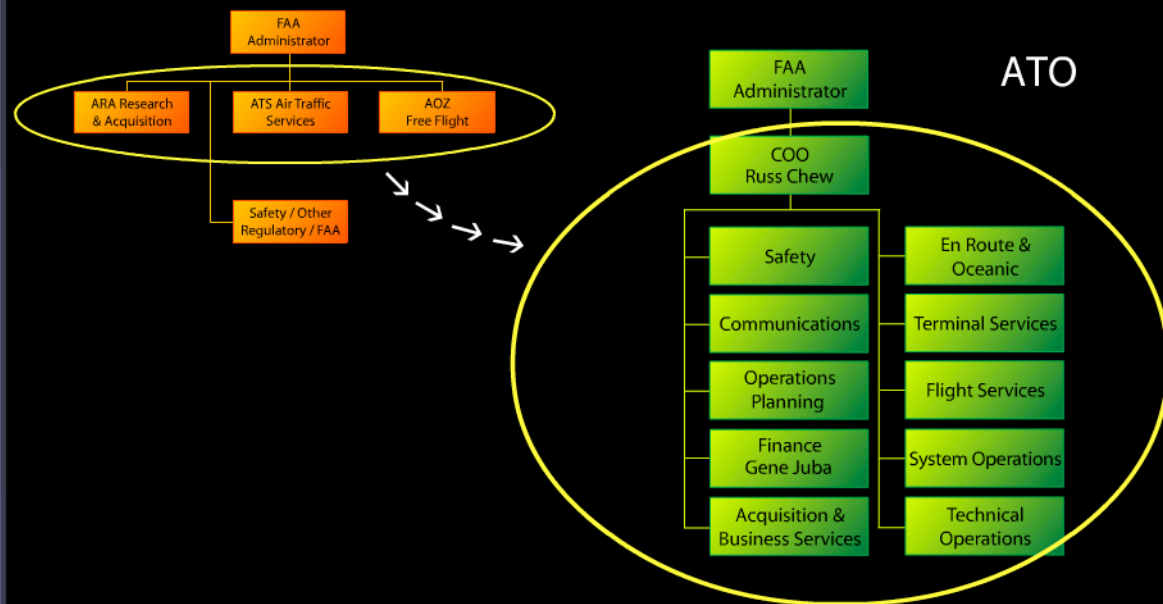
AIR TRAFFIC ORGANIZATION (ATO) FORMED IN 2004



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OUR STAKEHOLDERS



ATO STRATEGIC MANAGEMENT PROCESS

**Achieve Operational
Excellence**

**Enhance Financial
Discipline**

**Increase Capacity
Where Needed**

**Ensure Viable
Future**

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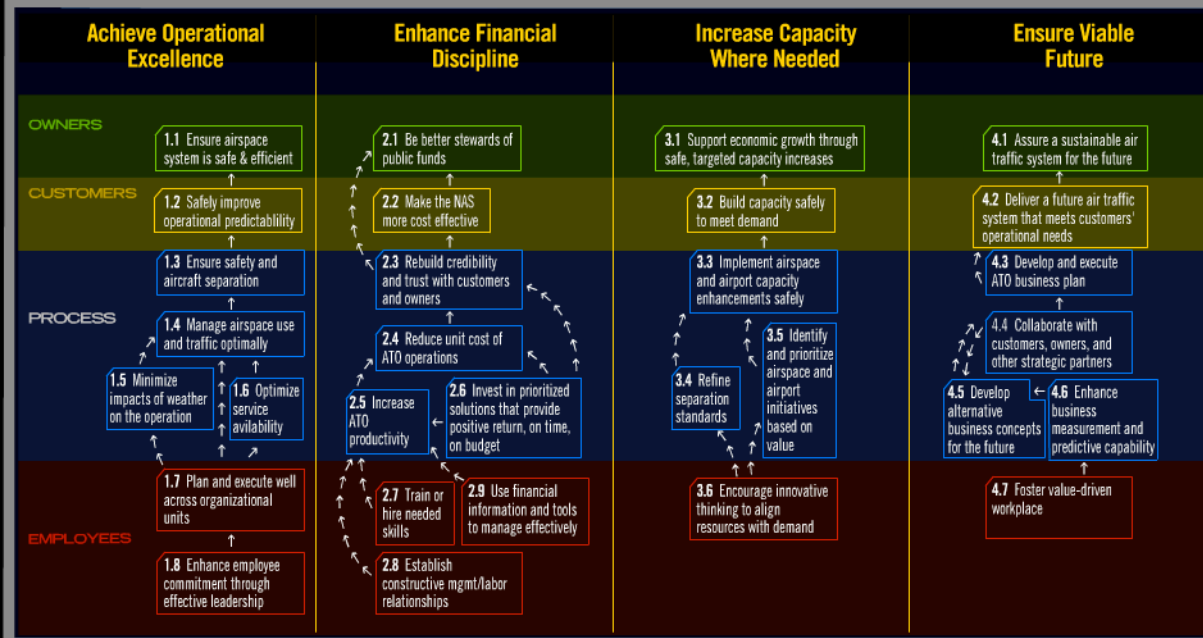
OWNERS

CUSTOMERS

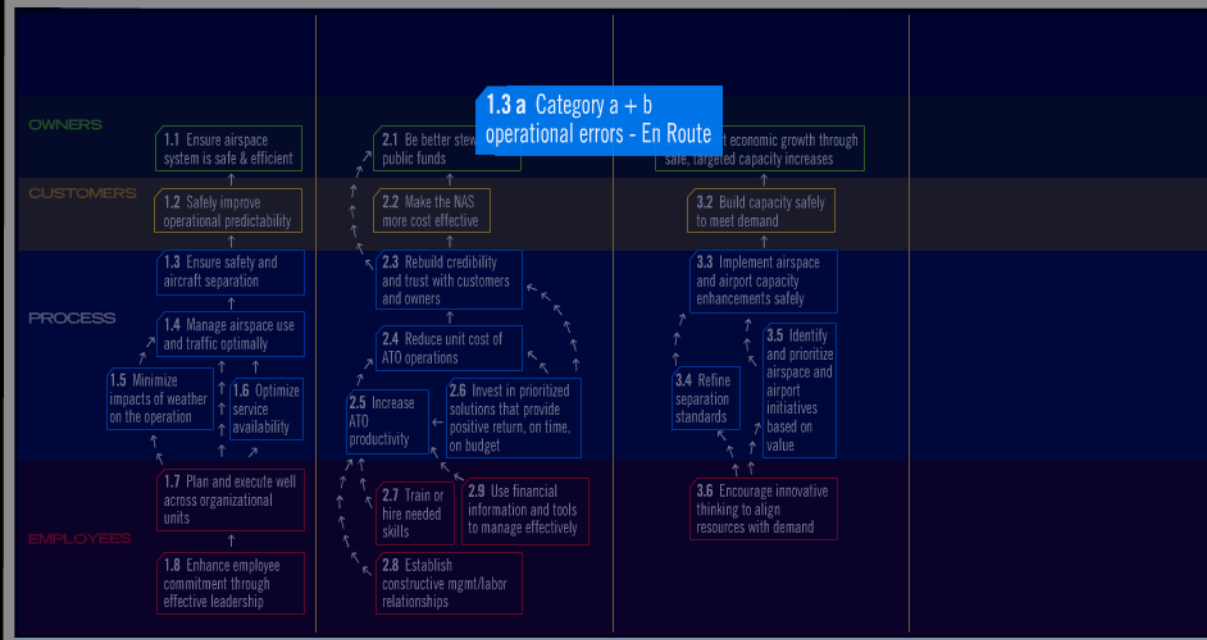
PROCESS

EMPLOYEES

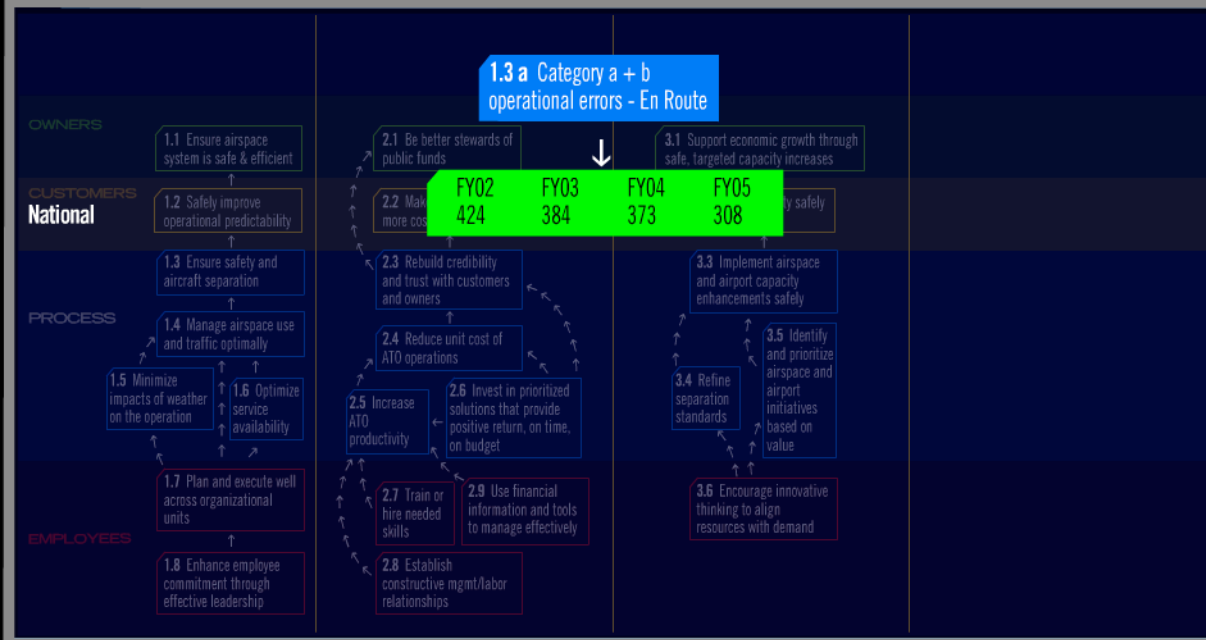
ATO STRATEGIC MANAGEMENT PROCESS



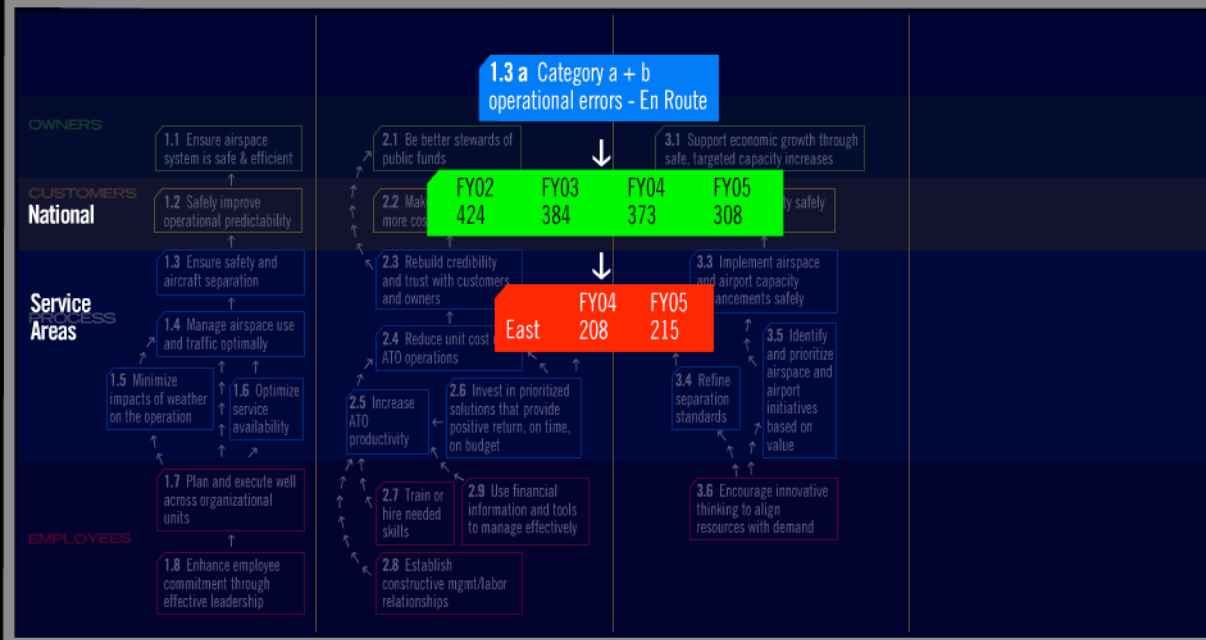
ATO STRATEGIC MANAGEMENT PROCESS



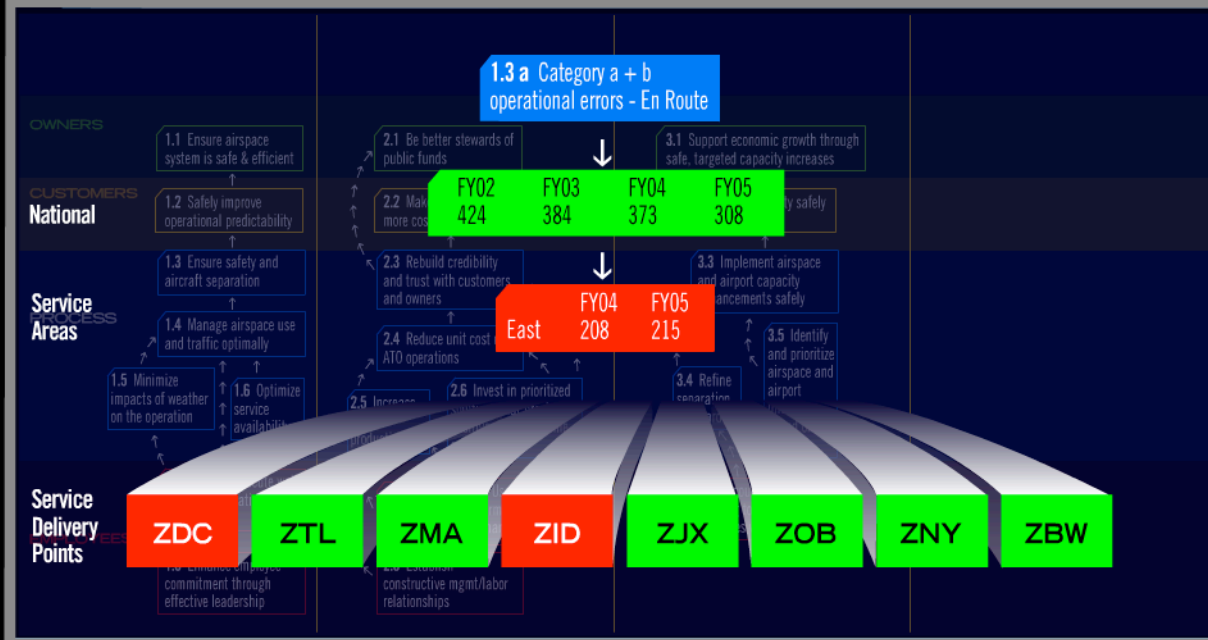
ATO STRATEGIC MANAGEMENT PROCESS



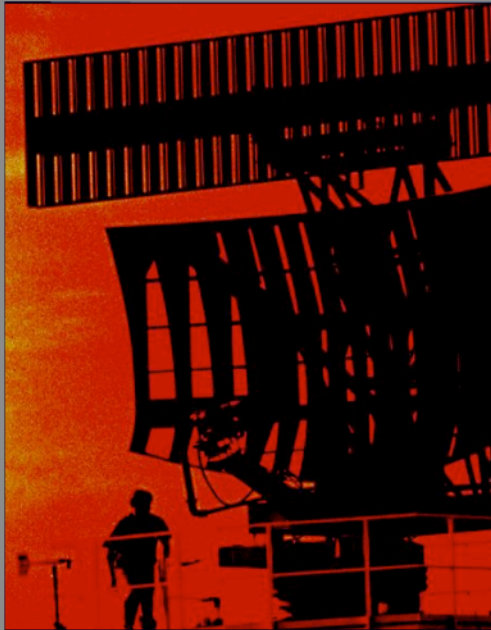
ATO STRATEGIC MANAGEMENT PROCESS



ATO STRATEGIC MANAGEMENT PROCESS



ATO STRATEGIC MANAGEMENT PROCESS



	FY04	FY05
ZID	21	31

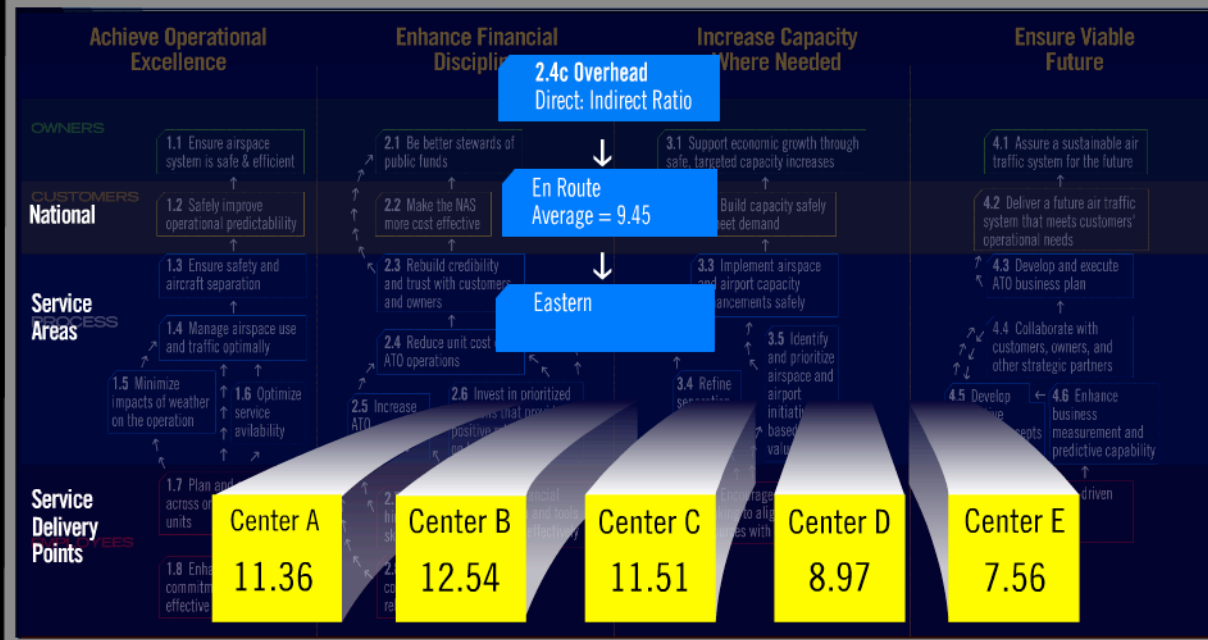
Indianapolis Center

	FY04	FY05
ZDC	33	53

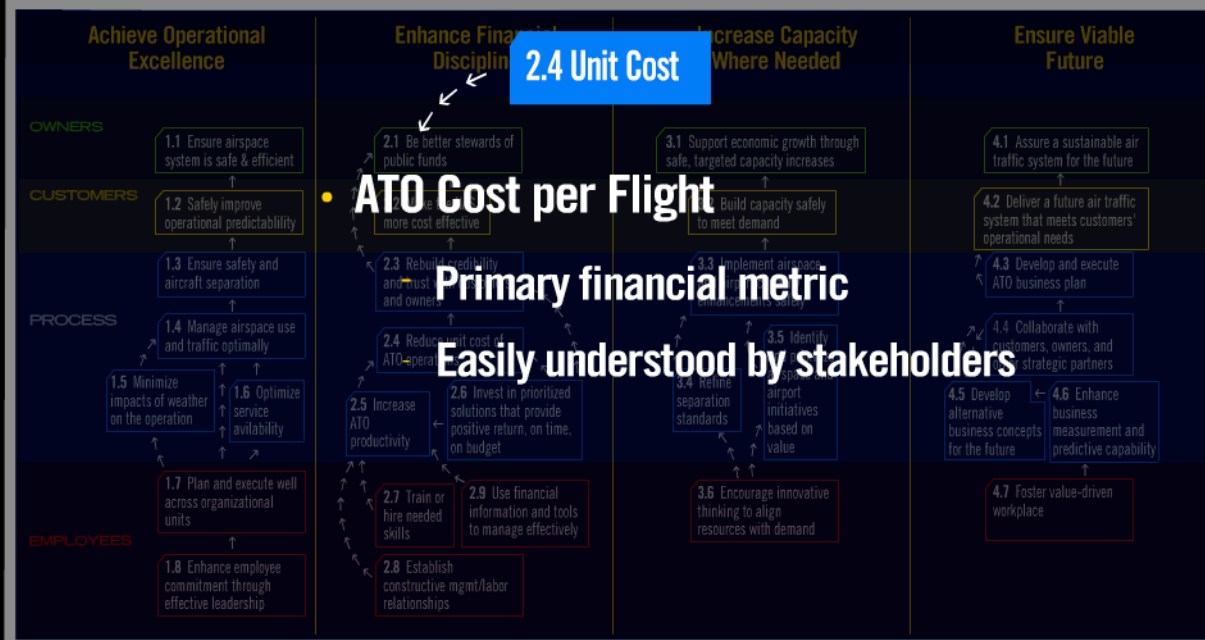
Washington Center

**Operational Errors are up at
Indianapolis Center and
Washington Center.**

ATO STRATEGIC MANAGEMENT PROCESS



ATO STRATEGIC MANAGEMENT PROCESS



ATO STRATEGIC MANAGEMENT PROCESS



METRICS - THE NEXT PHASE

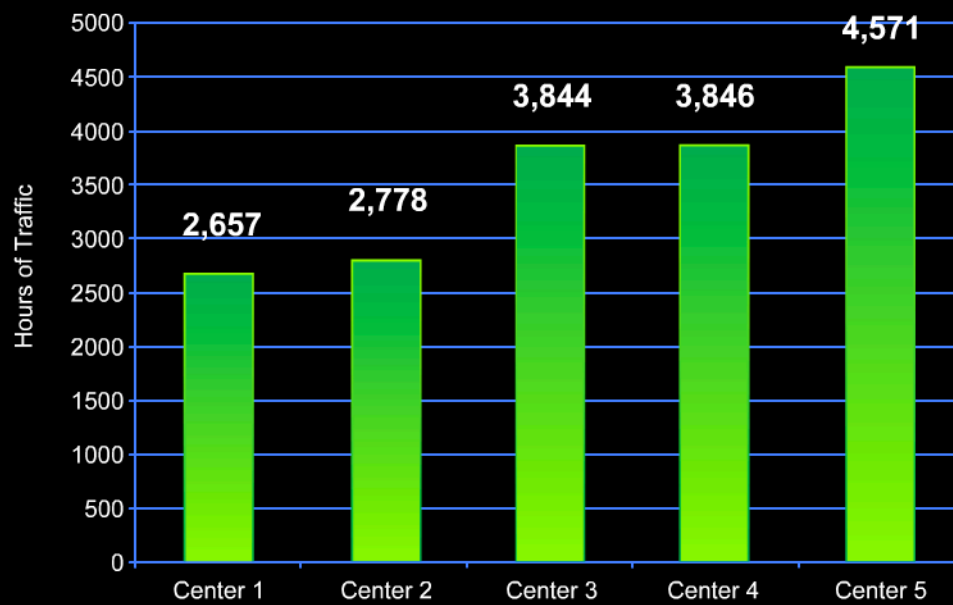
En Route Workload Metric = Flight Hour

- An imperfect measure - does not account for complexity
- In 2005, average front line En Route controller* handled 3,500 flight-hours of traffic
- Individual centers however, varied dramatically

* including 1st line supervisor



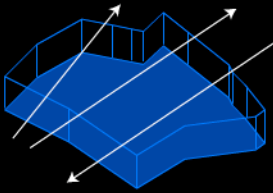
METRICS - THE NEXT PHASE



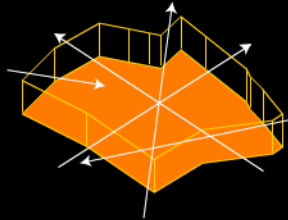
COMPLEXITY

Traffic flow characteristics create different levels of complexity for a sector:

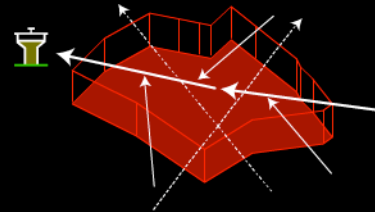
Cruise Traffic



Altitude Transitioning and Crossing Traffic



Arrival and Crossing Traffic



QUANTIFYING COMPLEXITY

- **Identify specific traffic characteristics that contribute to complexity**
 - Altitude transitions
 - Proximity events (potential conflicts)
 - Aircraft type and equipage mix
 - Etc.
- **Capture data in an automated fashion**
- **Assess time to perform these controller tasks**
- **Using this data, we can more accurately determine workload**
- **Currently validating our initial results with air traffic facilities**

QUANTIFYING COMPLEXITY



- Potential Applications

- Improve performance metric
- Better able to determine staffing requirements
- Tool for airspace redesign



Measuring Performance

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